



**ADVISING WORKSHEET**  
**BACHELOR OF SCIENCE DEGREE**  
**MAJOR IN BIOLOGY**  
**GENERAL BULLETIN 2021-2022**

TRANSFER INSTITUTION(S):  
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Name \_\_\_\_\_

Student ID # \_\_\_\_\_

**GENERAL EDUCATION REQUIREMENTS – SEE ATTACHED PAGE FOR SPECIFIC COURSES**

General Education Category	Course #	Credits	Grade	Semester	Equivalent
<b>Category I: Global Academic Skills</b> (9 credits) A. Mathematics (3 credits) <i>M 171 or STAT 216 – Major requirement</i> B. English (3 credits) C. Communication & Information Literacy (3 credits)					
<b>Category II: Natural Sciences</b> (7 credits) 2 lectures (6 credits) & 1 lab (1 credit) (1 life science & 1 physical science & 1 lab)  <i>BIOB 160/161 &amp; CHMY 141 – Major requirements</i>					
<b>Category III: Social Sciences and History</b> (6 credits) A. Social Science (3 credits) B. History (3 credits)					
<b>Category IV: Cultural Diversity</b> (3 credits)					
<b>Category V: Arts &amp; Humanities</b> (6 credits) A. Fine Arts (3 credits) B. Humanities (3 credits)					

*A minimum grade of "C-" is required in all General Education courses.*

*Note: Certain degrees may require a minimum grade of "C" in General Education courses.*

*Students should consult with their advisors to determine if specific courses are necessary in order to satisfy the General Education requirements within this program.*

*Certain courses in this program have prerequisites; students should check the course descriptions in the General Bulletin for required prerequisites.*

**Reviewed:**

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# GENERAL EDUCATION REQUIREMENTS

## CATEGORY I: GLOBAL ACADEMIC SKILLS 9 credits

Students are required to take one course from each subcategory

<b>Subcategory A - Mathematics</b>				<b>3 credits</b>
M	105	Contemporary Mathematics	3	
M	114	Extended Technical Mathematics	3	
M	121	College Algebra	3	
M	122	College Trigonometry	3	
M	130	Mathematics for Elementary Teachers I	3	
M	140	College Math for Healthcare	3	
M	143	Finite Mathematics	4	
M	161	Survey of Calculus	3	
M	171	Calculus I	4	
STAT	141	Introduction to Statistical Concepts	3	
<b>STAT</b>	<b>216</b>	<b>Introduction to Statistics</b>	<b>4</b>	

### Subcategory B - English 3 credits

WRIT	101	College Writing I	3	
WRIT	121	Introduction to Technical Writing	3	
WRIT	122	Introduction to Business Writing	3	
WRIT	201	College Writing II	3	
WRIT	220	Business & Professional Writing	3	
WRIT	221	Intermediate Technical Writing	3	

### Subcategory C- Communication & Information Literacy 3 credits

BMIS	150	Cyber Security and Electronic Communication	3	
COMX	111	Introduction to Public Speaking	3	
COMX	115	Introduction to Interpersonal Communication	3	
LSCI	125	Research in the Information Age	3	

## CATEGORY II: NATURAL SCIENCES 6 cr. lecture & 1 cr. lab

Students are required to take one course from each subcategory and at least one corresponding lab or Integrated Sciences

### Subcategory A – Life Sciences 3-4 credits

BIOB	101	Discover Biology	3	
BIOB	102	Discover Biology Lab	1	
BIOB	121	Fundamentals of Biology for Allied Health	3	
BIOB	122	Fund of Biology: Evolution, Ecology, and Biodiversity	3	
BIOB	123	Fund of Biology: The Nature of Nutrition	3	
<b>BIOB</b>	<b>160</b>	<b>Principles of Living Systems</b>	<b>3</b>	
<b>BIOB</b>	<b>161</b>	<b>Principles of Living Systems Lab</b>	<b>1</b>	

### Subcategory B – Physical Sciences 3-4 credits

ASTR	110	Introduction to Astronomy	3	
ASTR	111	Introduction to Astronomy Lab	1	
CHMY	121	Introduction to General Chemistry	3	
CHMY	122	Introduction to General Chemistry Lab	1	
<b>CHMY</b>	<b>141</b>	<b>College Chemistry I</b>	<b>3</b>	
<b>CHMY</b>	<b>142</b>	<b>College Chemistry Laboratory I</b>	<b>1</b>	
GEO	101	Introduction to Physical Geology	3	
GEO	102	Introduction to Physical Geology Laboratory	1	
GPHY	262	Spatial Sciences Technology & Applications	3	
GPHY	263	Spatial Sciences & Technology Lab	1	
PHSX	103	Our Physical World	3	
PHSX	104	Our Physical World Lab	1	
PHSX	205	College Physics I	3	
PHSX	206	College Physics I Lab	1	

Integrated Sciences

SCIN	101, 102, 103, 104	Integrated Sciences	3, 1, 3, 1	
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## CATEGORY III: SOCIAL SCIENCES AND HISTORY 6 CREDITS

Students are required to take one course from each subcategory

<b>Subcategory A – Social Sciences</b>				<b>3 credits</b>
ANTY	217	Physical Anthropology & Archeology	3	
BGEN	105	Introduction to Business	3	
COMX	106	Communicating in a Dynamic Workplace	3	
ECNS	201	Principles of Microeconomics	3	
ECNS	202	Principles of Macroeconomics	3	
EDU	105	Education and Democracy	3	
HTH	110	Personal Health and Wellness	3	
PSCI	210	Introduction to American Government	3	
PSCI	220	Introduction to Comparative Government	3	
PSYX	100	Introduction to Psychology	3	
SOCI	101	Introduction to Sociology	3	
SOCI	201	Social Problems	3	

### Subcategory B - History 3 credits

HSTA	101	American History I	3	
HSTA	102	American History II	3	
HSTR	101	Western Civilization I	3	
HSTR	102	Western Civilization II	3	
HSTR	103	Honors Western Civilization I	3	
HSTR	104	Honors Western Civilization II	3	
PSCI	230	Introduction to International Relations	3	

## CATEGORY IV: CULTURAL DIVERSITY 3 credits

ANTY	220	Culture and Society	3	
ARTH	160	Global Visual Culture	3	
COMX	212	Intro to Intercultural Communication	3	
GPHY	121	Human Geography	3	
HTH	270	Global Health Issues	3	
LIT	230	World Literature Survey	3	
MUSI	207	World Music	3	
NASX	105	Introduction to Native American Studies	3	
NASX	205	Native Americans in Contemporary Society	3	
PHL	271	Indian Philosophies and Religions	3	
PHL	272	Chinese Philosophies and Religions	3	
REHA	201	Introduction to Diversity in Counseling	3	
RLST	170	The Religious Quest	3	
SPNS	150	The Hispanic Tradition	3	
WGSS	274	Women, Culture, and Society	3	

## CATEGORY V: ARTS & HUMANITIES 6 credits

Students are required to take one course from each subcategory

<b>Subcategory A – Fine Arts</b>				<b>3 credits</b>
ARTZ	101	Art Fundamentals	3	
ARTZ	105	Visual Language-Drawing	3	
ARTZ	106	Visual Language-2-D Foundations	3	
ARTZ	108	Visual Language-3-D Foundations	3	
ARTZ	131	Ceramics for Non-majors	3	
CRWR	240	Intro Creative Writing Workshop	3	
FILM	160	Introduction to World Cinema	3	
LIT	270	Film & Literature	3	
MART	260	Computer Presentation and Animation	3	
MUSI	101	Enjoyment of Music	3	
MUSI	114	Band: MSUB Symphonic	1	
MUSI	131	Jazz Ensemble I: MSUB	1	
MUSI	147	Choral Ensemble: University Chorus	1	
PHOT	154	Exploring Digital Photography	3	
THTR	101	Introduction to Theatre	3	
THTR	120	Introduction to Acting I	3	

### Subcategory B - Humanities 3 credits

ARTH	150	Introduction to Art History	3	
HONR	111	Perspectives and Understanding	3	
LIT	110	Introduction to Literature	3	
LIT	213	Montana Literature	3	
PHL	110	Introduction to Ethics	3	
PHL	111	Philosophies of Life	3	
PHL	254	People and Politics	3	

Course		Credits	Grade	Semester	Equivalent
<i>A minimum grade of C- or better is required in all major coursework</i>					
<b>Biology Requirements</b>					
*BIOB	160	Principles of Living Systems	3		
*BIOB	161	Principles of Living Systems Lab	1		
BIOB	170	Principles of Biological Diversity	3		
BIOB	171	Principles of Biological Diversity Lab	1		
BIOB	260	Cellular and Molecular Biology	3		
BIOB	261	Cellular and Molecular Biology Lab	1		
BIOB	375	General Genetics	3		
BIOB	376	General Genetics Lab	1		
BIOB	425	Advanced Cell and Molecular Biology	3		
BIOB	426	Advanced Cell and Molecular Biology Lab	1		
BIOB	487	Bioinformatics	3		
BIOB	490	Undergraduate Research	2		
BIOB	499	Senior Thesis/Capstone	1		
BIOE	370	General Ecology	3		
BIOE	371	General Ecology Lab	1		
BIOM	360	General Microbiology	3		
BIOM	361	General Microbiology Lab	1		
<b>Upper Division Science Electives (10 credits – selected in consultation with advisor from the following rubrics: BCH, BIOB, BIOE, BIOH, BIOM, BIOO, CHMY, EARTH, GEO, GPHY, PHSX)</b>					

**Biology Total 44**

**Chemistry Requirements**

*CHMY	141	College Chemistry I	3		
*CHMY	142	College Chemistry Laboratory I	1		
CHMY	143	College Chemistry II	3		
CHMY	144	College Chemistry Laboratory II	1		
CHMY	321	Organic Chemistry I	3		
CHMY	322	Organic Chemistry Laboratory I	1		
CHMY	323	Organic Chemistry II	3		
CHMY	324	Organic Chemistry Laboratory II	1		
BCH	380	Biochemistry	3		
BCH	381	Biochemistry Lab	1		

**Chemistry Total 20**

**Mathematics/Statistics Requirement (Choose two of the following)**

*M or *M	161 171	Survey of Calculus Calculus I	3-4		
M	172	Calculus II	4		
PSYX	223/ 224	Research Design and Analysis I Research Design and Analysis I Lab	3 1		
*STAT or PSYX	216 223/224	Introduction to Statistics Research Design and Analysis I with Lab	4		

**Math/Statistics Total 7-8**

\*May satisfy General Education requirements.

